

Claims

1-7 Canceled

8. (New) An electric sub-assembly having a non-plated printed circuit board (2) with electric conductor tracks (3, 6) on the lower and upper side, the sub-assembly comprising:

at least one electrically conductive contact pin for providing an electric connection between two or more conductor tracks (3, 6) on an upper and lower side by at least one electrically conductive contact pin (1);

at least one non-metallized opening (2), wherein the opening (2) of the printed circuit board has predetermined dimensions (D2) and is for forming a press connection with the contact pin (1), and having over a first partial length (I1.1) a defined oversize ($D1.1 > D2$) in relation to dimensions (D2) of the opening, and having a second partial length (I1.2) that lies in front of an introduction direction with an undersize ($D1.2 < D2$), which is smaller than the dimension of the opening (D2), wherein the first partial length (I1.1) is smaller than a depth (I2) of the opening (2) of the printed circuit board, so that after being introduced at least one part of the second partial length (I1.2) remains in the opening, and the length (I1), that can be introduced, of the contact pin (1) is greater than the depth (I2) of the opening (2) so that the contact pin (1) once pressed into the hole, passes through the printed circuit board (2) and projects beyond the latter in the introduction direction; and

two or more contact zones are provided around the opening (2) on the upper and lower side of the printed circuit board (9), wherein the contact zones form an edge corresponding to the dimensions (D2) of the opening (2), so that the contact pin (1) once the pin has been pressed into the hole on the face lying in the introduction direction contacts the contact zone (3), located there, of the conductor track, and the contact pin (1) on the face opposite to the introduction direction is electrically connected by flow soldering to the contact zone (6), located there, of the conductor track.

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9. (New) An electric sub-assembly according to claim 8, wherein a second sub-section (I1.2) of the contact pin comprises an area of transition to a first sub-section (I1.1), in which a constant tapering is effected.
10. (New) An electric sub-assembly according to claim 8, wherein the contact pin (1) is formed in massive manner.
11. (New) An electric sub-assembly according to claim 8, wherein a printed circuit board (9) made of CEM- or FR4-material is used.
12. (New) An electric sub-assembly according to claim 8, wherein a stop (1.3) is provided, which defines the length (I1), that can be introduced, of the contact pin (1).
13. (New) An electric sub-assembly according to claim 8, wherein when pressing in the contact pin (1) on the face lying in the introduction direction the edge of the contact zone (3), located there, is cold-welded with the contact pin (1) and that on the upper side of the printed circuit board a gas-tight and solder-free press connection is made between the contact pin (1) and the contact zone (3).
14. (New) An electric sub-assembly according to claim 8, wherein the opening (2) is punched in the printed circuit board (9).